

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method of re-configuring a network element of a transmission network to restore traffic after a failure, said method comprising:

generating a configuration request to implement a new cross-connection through said network element, said configuration request indicating an internal cross-connection of said transmission network to be switched by said network element,

performing said configuration request in a first fetch-ahead phase comprising only configuration steps essential for fast implementation of said new cross-connection and skipping security related configuration steps thereby providing reduced security against process restarts; and

performing said configuration request in a second consolidation phase comprising said previously skipped security related configuration steps.

2. (previously presented): The method according to claim 1, wherein said consolidation phase comprises a consistency check of said configuration request and storing of configuration changes in a persistent local database.

3. (previously presented): The method according to claim 1, wherein if performance of said configuration request in the fetch-ahead phase leads to an inconsistency between an actual hardware configuration and a locally stored configuration data of said network element, said inconsistency is resolved during said consolidation phase.

4. (previously presented): The method according to claim 1, wherein a timer is started during said fetch-ahead phase and if said timer lapses before said consolidation phase completes, configuration steps performed during said fetch-ahead phase are undone by re-loading a stored configuration data.

5. (currently amended): A network element of a transport network, comprising:

a plurality of input ports and a plurality of output ports,

a cross-connection matrix for randomly establishing connections from one of the plurality of input ports to one of the plurality of output ports, and

at least one controller for configuring said network element and establishing cross-connections through said cross-connection matrix;

wherein said at least one controller is adapted to perform a received configuration request in a fetch-ahead phase first and to perform said received configuration request in a consolidation phase thereafter, said configuration request indicating an internal cross-connection of said transport network to be switched by said network element;

wherein said fetch-ahead phase comprises only configuration steps essential for fast implementation of said cross-connection and skips security related configuration steps thereby providing reduced security against process restarts; and

wherein said consolidation request comprises said previously skipped security related configuration steps.

6. (previously presented): The network element according to claim 5, wherein said controller comprises:

a layered control software with at least two software layers,

a first software layer comprising an abstraction of physical resources and logical resources of said network element for the purpose of network management, and

a second software layer comprises a representation of actual hardware modules of the network element and the network element configuration;

wherein said first software layer and said second software layer comprise an individual persistent storage storing an image of configuration data of a corresponding software layer of said software layers; said controller being adapted to successively process said configuration request in said first software layer and said second software layer and forward said configuration request to a next lower layer of said software layers,

wherein storing of configuration data to the persistent storage is performed in each of said layers during said consolidation phase, only.

7. (previously presented): The network element according to claim 5, wherein said consolidation phase comprises a consistency check of said configuration request and storing of the configuration changes in a persistent local database.
8. (previously presented): The network element according to claim 5, wherein execution of said configuration request in the fetch-ahead phase leads to an inconsistency between an actual hardware configuration and a locally stored configuration data of said network element and wherein during said consolidation phase, said inconsistency is resolved.
9. (previously presented): The network element according to claim 5, further comprising a timer which is started during said fetch-ahead phase and if said timer lapses before said consolidation phase completes, configuration steps performed during said fetch-ahead phase are undone by re-loading stored configuration data.
10. (previously presented) The method according to claim 1, wherein a route of said new cross-connection through said network element established during said first phase, is not changed during said second phase.
11. (new): The method according to claim 1, wherein said configuration request to implement a new cross-connection is completely fulfilled in said first fetch-ahead phase.

12. (new): The method according to claim 1, wherein said internal cross-connection of said transmission network immediately after said first fetch-ahead phase is the same as said internal cross-connection of said transmission network immediately after said second consolidation phase.

13. (new): The network element according to claim 5, wherein said configuration request to implement a new cross-connection is completely fulfilled in said fetch-ahead phase.

14. (new): The network element according to claim 5, wherein said established cross-connections of said cross-connection matrix immediately after said fetch-ahead phase is the same as said established cross-connections of said cross-connection matrix immediately after said consolidation phase.